

Application No. 10/061,976
Amendment Dated June 3, 2005
Reply to Office Action of May 12, 2005

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

1. (Original) A method of maintaining distributed time in a network having a plurality of timekeeping devices including a primary timekeeping entity, each said timekeeping device comprising a network node, the method comprising the steps of:

entering the time using an input mechanism on a first timekeeping device;
sending the time from said first timekeeping device to said primary timekeeping entity;
broadcasting a time update from said primary timekeeping entity to all other timekeeping entities, said broadcast repeating every T1 seconds and carrying an indication of the current time;
receiving said time update at a second timekeeping entity and starting a counting device upon said receipt;
checking the status of the counting device every T2 seconds and determining the elapsed time since said second timekeeping device received said time update comparing said elapsed time to a predetermined threshold value T3; and
if said elapsed time is greater than T3, making an indication that said second timekeeping device's time is unreliable.

2. (Original) The method of claim 1 wherein T2 is greater than T1.

3. (Original) The method of claim 1 wherein T2 is less than T1.

4. (Original) The method of claim 1 wherein said first device and said second device are the same.

5. (Original) The method of claim 1 wherein each of said plurality of timekeeping devices restarts said counting device upon the receipt of a time update.

Application No. 10/061,976
Amendment Dated June 3, 2005
Reply to Office Action of May 12, 2005

6. (Original) The method of claim 1 wherein said primary timekeeping device is a network switch or router.

7. (Original) The method of claim 1 wherein said primary timekeeping device is a Fibre Channel switch.

8. (Original) The method of claim 1 wherein said plurality of timekeeping devices are Fibre Channel switches.

9. (Original) A computer readable media encoded with program instructions for causing one or more of said timekeeping devices to perform the method of claim 1.

10. (Original) A network switch for maintaining distributed time in a network having a plurality of timekeeping devices, said network switch comprising:

an I/O mechanism for receiving a time update from an operator; a first port for sending said time update across said network to a primary timekeeping entity;

a second port for receiving a broadcast time update from said primary timekeeping entity every T1 seconds, said time update carrying an indication of the current time;

a counter for timing the age of the most recently received time update, said counter restarting upon receipt of said time update;

a microprocessor to (i) cause a status check upon said counter every T2 seconds, (ii) cause a determination of the elapsed time since said second timekeeping device received said time update, (iii) cause a comparison between said elapsed time and a predetermined threshold value T3; and (iv) cause an indication that said network switch is unsynchronized if said elapsed time is greater than T3.

11. (Original) The invention of claim 10 wherein T2 is greater than T1.

12. (Original) The invention of claim 10 wherein T2 is less than T1.

13. (Original) The invention of claim 10 wherein said first port and said second port are the same.

Application No. 10/061,976
Amendment Dated June 3, 2005
Reply to Office Action of May 12, 2005

14. (Original) The invention of claim 10 wherein said primary timekeeping device is a network switch or router.

15. (Original) The invention of claim 10 wherein said primary timekeeping device is a Fibre Channel switch.

16. (Original) The invention of claim 10 wherein said network switch is a Fibre Channel switch.

17. (Original) A computer readable media encoded with program instructions for causing said network switch to perform the method of claim 10.

Claims 18-41 (Cancelled).